

CLAIMS

1. Disposable module (31) for purifying a fluid, in particular water, adapted to form part of a fluid purification system and comprising fluid purification means (25, 28), a housing (35) in which the purification means are housed, and means for removably connecting the purification module (31) to the purification system to establish fluid communication between the purification system and the purification module (31), characterized in that the housing (35) contains from the outset a cleaning agent (36) disposed to come into contact with the fluid caused to circulate inside the housing (35) to clean at least a portion of the purification system.

2. Module according to claim 1, characterized in that the housing may not be demounted.

3. Module according to claim 1 or claim 2, characterized in that the cleaning agent is disposed between an inlet for fluid to be treated formed in the housing and the purification means or between the latter and a purified fluid outlet formed in the housing.

4. Module according to any of claims 1 to 3, characterized in that the cleaning agent is housed in a space created for this purpose in the housing, in particular a recess in a raised portion of the housing.

5. Module according to any of claims 1 to 3, characterized in that the cleaning agent is housed in a space delimited by retaining means for the cleaning agent preferably taking the form of a cage, in particular an added cage.

6. Module according to any of claims 1 to 5, characterized in that the housing contains tangential filtration purification means, in particular purification means employing reverse osmosis, nanofiltration, ultrafiltration or microfiltration.

7. Module according to any of claims 1 to 6, characterized in that the housing contains fluid purification pretreatment means upstream of the purification processing means, where applicable tangential filtration purification processing means, and the cleaning agent is disposed between the pretreatment means and the purification treatment means or between the latter and a purified fluid outlet formed in the housing.

8. Module according to claim 7, characterized in that the pretreatment means are selected from the group comprising ion exchanger activated supports or resins, activated charcoal, chlorine reduction agents, in particular alloys such as copper-zinc formulations, front filtration members, tartar formation reduction agents, in particular polyphosphates, and combinations of the above.

9. Module according to any of claims 1 to 8, characterized in that the cleaning agent comprises a chemical compound or an association of chemical compounds for destroying a biofilm and/or having a bactericidal effect and/or for eliminating organic and/or mineral soiling.

10. Module according to any of claims 1 to 9, characterized in that the cleaning agent takes the form of a powder, crystals, granules, a tablet, possibly coating or where applicable constituting the content of capsules or sachets dissolving or splitting in contact with the fluid, or in the form of a liquid constituting the content of an enclosure that splits in contact with the fluid.

11. Module according to any of claims 1 to 10, characterized in that the cleaning agent is a chlorinated product, an organochlorinated product, an oxidizing product, an acid, a base or a disinfectant solution.

12. Module according to claim 11, characterized in that the cleaning agent is bleach, a chloramine, hypochloric, hypochlorous, citric, tartaric, acetic, perchloric or peracetic acid, a salt of one of the above acids, sodium hydroxide, potassium hydroxide, potassium permanganate, potassium dichromate or a disinfectant solution containing hydrogen peroxide and peracetic acid or organic complexes containing silver salts.

13. Module according to any of claims 1 to 12, characterized in that the housing includes means for identification of the module by the fluid purification system.

14. System for purifying a fluid comprising at least one fluid purification module as defined in any of claims 1 to 13.

15. Method of fabricating a disposable fluid purification module according to any of claims 1 to 13, including the mounting of purification means in a housing, characterized in that it further includes placing a cleaning agent inside the housing before closing it.

16. Method of cleaning at least a portion of a fluid purification system, characterized in that it includes the steps of connecting a disposable

fluid purification module as defined in any of claims 1 to 13 to the fluid purification system and then starting a system cleaning procedure, where applicable starting said cleaning procedure automatically following identification of the module by the system by means of the identification means.

5